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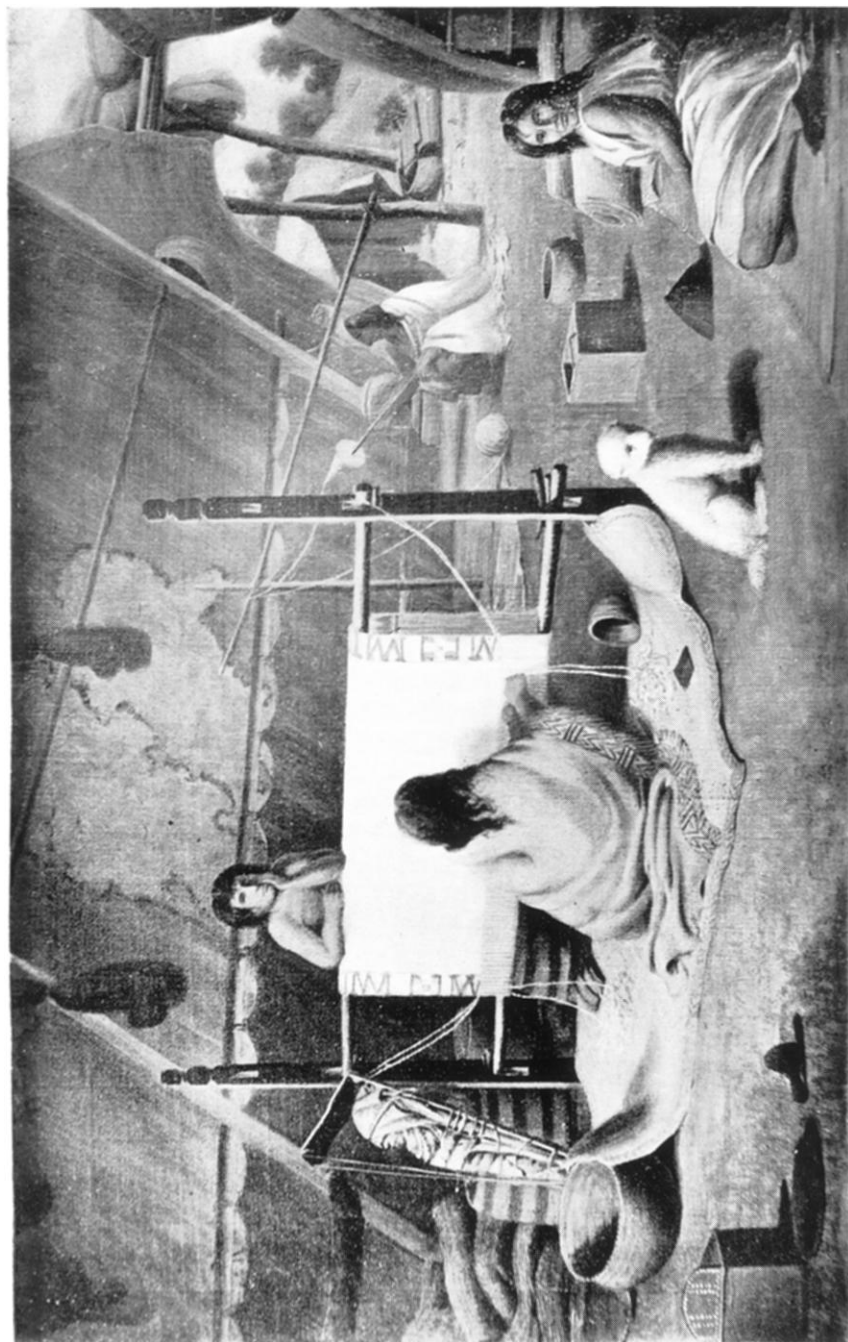
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## A NEW TYPE OF SPINNING IN NORTH AMERICA

By MARY LOIS KISSELL

WHILE assembling the material for a forthcoming publication on the "Indian blanket of the northwest," under the joint authorship of Dr. C. F. Newcombe, James Teit, and the writer, a unique manner of spinning was noted among two of the Salish tribes. It is a method quite different from any previously described from peoples of lower culture either in America, or in other parts of the world. This mode of spinning in all probability furnished the yarn for at least three of the seven distinct types of blankets made by the Indians of the Northwest. Of the older examples of these, only a few remain scattered in the museums of America and Europe, where there is nothing on record concerning them save that they were collected by Captain Cook, or some early explorer. It is the unusual character of these rare old blankets, some kinds of which have not been made in the last half century, that first aroused an interest which led to a general study of blankets from this area. This interest resulted in a union with the two authorities, Dr. Newcombe, known for his wide acquaintance with the Indians of the Northwest Coast and James Teit, eminent in his knowledge of the Indians on the northwestern plateau, on a publication which it is hoped will be a valuable contribution to the subject.

To return to the spinning: the unrecorded type was found in three Cowichan villages, Nanaimo and Kockasailo on Vancouver island, and Musqueam on the mainland; as well as in the two Thompson villages, Yale and Spuzzum. As is generally known, primitive people produce yarn in two ways; without a device or with a spindle. It is the second that concerns us here, since it is the manner of using this spinning device which differs from its use in other localities. Spindle spinning has heretofore been thought to be of two kinds: spinning with a free spindle, that is, one twirling



REPRODUCED FROM A PRINT OF AN OIL PAINTING BY PAUL KANE IN 1846. THE SPINNING IS TO BE SEEN IN THE BACKGROUND AT THE [RIGHT

in the air unsupported by other than the twisting yarn; and spinning with a sustained spindle, that is one which revolves upon some surface. The first was largely employed during early days in the Old World, and today in South America; the second is found in North America, Mexico, Central America, and some parts of Asia, Africa, and the Pacific islands. The spinning of the Cowichan and Thompson Indians belongs to neither of these types, it is a third mode of spindle use entirely unique, a description of which will make this clear.

As modern practice differs slightly from that of the old days, the early method of spinning in these two tribes will be described and then present day changes will be given. The preliminary preparation for spinning consists of rolling the wool with the palm over the thigh, splicing on more wool, and so continuing the rolling and splicing until a long loosely made roving is furnished, which as completed is passed into a basket, or a box, or if neither are at hand, to a pile at the spinner's side. One end of the roving is now run through the tension ring, a little circle of wickerwork, or a small wooden or stone form pierced by a round hole. Previous to making the roving, the spinner has suspended the tension ring from the ceiling by means of a cord, or attached it high on the wall, so as to give a long stretch between it and the spindle. Some spinners do not employ a tension ring, but throw the roving over the tall loom frame to give the necessary tension for drawing, as illustrated in a Field Museum print from an old picture made by Paul Kane fifty years ago (pl. xvi). After proceeding through the tension ring or over the loom frame, the end of the roving is tightly twisted for a short distance between the palms and then attached to the upper arm of the spindle shaft near the whorl. Everything having been made ready, the spinner squats upon a mat on the floor and with outstretched arms raises the huge spindle to an oblique position by grasping its lower end in the palm of her left hand and clasping its shaft a little below the whorl in her right. The twirling might be termed a tossing motion which is performed by the up-turned palm of the right hand. When the roving has received the required amount of twist the upper end of the spindle is swung

upward and backward, thus bringing the next draft of roving through the tension ring and permitting, after the spindle end is again dropped to position, that the loosely sagging and already twisted yarn be wound upon the spindle. This is accomplished by lacing the yarn back and forth in large oval coils on the upper arm of the shaft as the spindle is lifted and lowered from the oblique to the vertical and from the vertical to the oblique while it is still revolving. After the stretch of completed yarn is wound on the shaft the spinner returns to the twirling motion that the freshly drawn roving may be twisted, when it is wound on the shaft as before described. So the spinning continues until the spindle is full, after which the yarn is unwound into a basket and later wound into great balls. It is the custom of some spinners to introduce a second winding between the lacing on the shaft and the ball making, when small portions of the yarn from time to time are unwound from the shaft and then tightly rewound with the hand in regular spool fashion, before continuing to twist more roving.

The few modifications in this old manner of spinning are due to the influx of civilization, which has introduced the chair among other modern conveniences. Upon this the spinner of today sits, while the back of a second chair serves as a substitute for the old drawing devices, the tension ring and the loom frame, since over the top edge of its back the roving is drawn. The lowering of the point of tension and the raising of the spindle bring the stretch of roving to a more nearly horizontal position (figure 27) and also do away with the tiresome upward stretching of the arms before necessary, besides allowing an easy steadying of the right elbow upon the knee. However, this shorter and less oblique stretch of the roving materially affects the quality of the yarn and results in a much coarser product than that of former times. But in the days of old there was a need for better yarn for the construction of finer blankets, a need which is now supplied by modern trade.

Wool spinning whether of sheep wool, or as here of the mountain goat, includes three processes;<sup>1</sup> first drawing, or arranging

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<sup>1</sup> Blümner, H., *Technologie und Terminologie der Gewerbe und Künste bei Griechen und Römern*, I. S, 112.

the fibers in parallel order by extending or drawing out a small mass of raw wool (a process in modern manufacturing called drafting); second, twisting, or uniting these parallel fibers by twisting them about each other; and third, winding, or taking care of the twisted yarn. All these processes may be carried on by hand, very slowly it is true, but very successfully as do the Tlingit Indians<sup>1</sup> who spin the mountain goat wool for their Chilkat blankets by drawing by hand, twisting with the palm on the thigh, and winding the spun yarn into balls; or, as do the nomads of the African Steppes of Wad-Draa,<sup>2</sup> who spin coarse yarn for their tents and mats of



FIG. 27. Photograph taken by Dr. C. F. Newcombe at Musqueam, 1915.

sheep wool by drawing and twisting as the Tlingit and then winding the yarn, as it is twisted, upon the bare foot, after first securing it to the big toe. Strange as it may seem, the Tlingit spinner can produce by hand a yarn that is many times finer, than can her not far distant neighbor, the Cowichan spinner make with the spindle.

<sup>1</sup> Emmons, G. T., "The Chilkat blanket," *American Museum, Mem.* III, 334.

<sup>2</sup> Jannasch, R., "Die Textilindustrie bei den Ur- und Naturvölkern," *Berliner Gesellschaft für Anthropologie*, XX, s. 85.

When the spinning processes are considered in relation to their progression, the Cowichan and Thompson Indian method is the most elementary use of the spindle, since the three processes follow one another in succession, no two taking place at the same time. With sustained spindle spinning the drawing is done by one hand at the time the twisting is being carried on by the other; with free spindle spinning the drawing is accomplished by both hand and spindle, taking place simultaneously with the twisting. Here the spinner first drafts the roving by pulling it through the tension ring, and then twists it with the spindle.

Also in their manipulation, the spinning processes here are in an undeveloped state. What can be more primitive when one wishes to draw out or extend a thing than to attach one end and then pull? Exactly in this way is the wool roving drawn through the tension ring and this retards its passage just enough to give the necessary draft to the roving, a method quite in contrast to the deft handling during the drawing for sustained and free spindle spinning. Another novelty is the direction in movement of the roving which is drawn toward the spinner instead of away, as in other spindle spinning. A single exception to this is the ancient Egyptian method where the roving is brought from a receptacle either in front of, or behind the spinner, as shown on tombs fifteen and seventeen, Beni Hasan, and tomb two, Tehuti-hetep.<sup>1</sup> However, only in one case is the method employed where the roving is twisted before turning away from the spinner and this is in twine making rather than yarn making. The manner of twisting the roving by the Cowichan and Thompson Indians is most elemental, that of twirling the spindle while grasping it in the hands. There are simpler spindles to be found in remote places in Asia and Europe, where the raw material to be spun is tied about a stick or a stone and then revolved.

Coles<sup>2</sup> illustrates an ancient Scottish stone spindle, but one that is shaped into slender pyramidal form and with the usual

<sup>1</sup> Newberry, P. E., *Beni Hasan*, I, Pl. 29; II, Pl. 4, 13; *El Bersheh*, I, Pl. 26; Warden, A. J., *The linen trade ancient and modern*, p. 211.

<sup>2</sup> Coles, F. R., "Decoration of Scottish spindles," *Reliquary and illustrated archaeologist*, V, p. 80.

slip-knot tying of the yarn at its upper end so common on European spindles. Certain Asiatics fasten two small sticks together to form a cross and employ this as a free spindle. But these rude forms both of stone and crossed sticks belong to a more advanced method of spindle use as before noted, since the free spindle serves the double function of drawing and twisting. When turning this Indian spindle the power is applied from below instead of above as with most spindles, for here the upper or spinning end is pointed away from the spinner. Neither during the turning is it at any time free from the grasp of the spinner, but constantly held in the hands. This and the lack of a steady base causes a loss of centrifugal power which greatly retards the motion. Thus the rank in spindle manipulation of this type is below both the free spindle revolving in the air which is almost devoid of friction; and the vertical sustained spindle with friction at its point only.

By reason of the foregoing crudities in method, yarn making with this type of spindle is slower than that with other spindles. The processes are not only slow but the product is of low grade, for only coarse yarn can be so spun. The raw material, it is true, does influence the finished yarn to some degree, because of the harsh character of mountain goat wool and of dog hair which formerly was mixed with the wool. Similarly the ancient yarn of wool and cow hair in northern Europe during the bronze age was coarse and harsh although spun with the free spindle.<sup>1</sup>

The method of preparing the raw material for spinning is similar to that employed by many peoples of lower culture, a rolling on the thigh. The early Egyptians prepared their raw material on a flat stone,<sup>2</sup> and the ancient Greeks made a knee cap of pottery upon which to prepare the roving. Two beautiful examples of the pottery "Onos" may be seen in the Greek vase hall of the Metropolitan Museum of Art. It is an implement about a foot long, of hollow cylindrical hood shape to fit the knee and used in this way by the Athenian spinners of the second half of the sixth century B. C.

The spindle employed in this third type of spinning has been

<sup>1</sup> Montelius, O., *Civilization of Sweden in heathen times*, p. 59.

<sup>2</sup> Newberry, P. E., *Beni Hasan*, I, Pl. 29; II, Pl. 4, 13.

recorded by a number of writers. It is a huge form, the largest hand spindle now known, with a shaft averaging four feet in length and a whorl eight inches in diameter. Formerly designs were carved on the whorl of maple wood, for as with many peoples the desire was strong to express beauty, or information, or both. Of the many decorated whorls in different parts of the world, perhaps the ivory, amber, and pottery whorls of the old Greeks and Romans are the most beautiful.<sup>1</sup> The weight of the spindle must always receive careful attention, especially in free spindle spinning of wool. There the spindle hangs on the roving so the weight materially influences the drawing,<sup>2</sup> but here the weight is supported in the hands.

As far as now known, this new type of spinning is an isolated type since the neighboring tribes who spin with the spindle use the small sustained type of the Southwest. The Kwakiutl of the coast to the north and the west give momentum to the sustained spindle by rubbing it along the shin;<sup>3</sup> while the Nootka to the west formerly used a similar spindle but twirled it between the thumb and first finger, if we can trust to scattered reports. The conflicting report made by Professor Boas twenty-five years ago<sup>4</sup> concerning the method of spinning by the Salish at Saanich, Vancouver island, can be easily accounted for. It is quite possible that some visiting Indian had employed the borrowed method of the Nootka and transferred it to the huge spindle of the Salish. All reports now from that locality indicate that this newly described type of spinning was the native method of the Cowichan.

<sup>1</sup> Forrer, R., *Reallexikon der prähistorischen klassischen und frühchristlichen Altertümer*, s. 754. Kimakowicz-Winnicki, "Spinn- und Weberwerkzeuge in Europas." *Mannus Bibliothek*, No. 2, s. 11, 24; *Darstellung über früh und vorgeschichtliche Kultur-Kunst und Völkerentwicklung*, Heft 2, s. 11, 24.

<sup>2</sup> Gotze, A., "Das Spinnen mit Spindel und Wirtel," *Berliner Gesellschaft für Anthropologie*, 1896, s. 473. Sokeland, H., "Das Spinnen mit Spindel und Wirtel," *Berliner Gesellschaft für Anthropologie*, 1897, s. 95.

<sup>3</sup> Boas, F., "The Kwakiutl of Vancouver Island." *Mem. Am. Museum*, V, Pl. II, p. 373.

<sup>4</sup> Boas, F., "Report British Asso. Advancement of Sci.," 1890, p. 566.